LISTING OF THE CLAIMS

Claims 1-24 were originally pending. Please amend claims 1-24. No claims have been canceled, added or withdrawn. Accordingly, claims 1-24 remain pending. The following listing of claims replaces all prior versions and listings of claims in the application.

1.   (Currently amended) A <u>tangible</u> computer-readable <u>data storage</u> medium having thereon computer-executable instructions for performing a method comprising<u>:</u>

maintaining, local to a peer participating in <s>at least</s> one <u>or more</u> communication connections, a local connection translation table, the local connection translation table<u>, for each connection of the one or more communication connections,</u> comprising:

<s>at least one</s> original connection parameter<u>s</u> <u>for the</u> <s>of the at least one communication</s> connection<u>, the original connection parameters specifying an initial network attachment point associated with original establishment of the connection between the peer and a remote peer</u>; <s>and</s>

<s>at least one</s> current connection parameter<u>s</u> <u>for</u> <s>of</s> the <s>at least one communication</s> connection<u>, the current connection parameters being different from the original connection parameters if the connection no longer uses the initial attachment point for incoming and outgoing data streams</u>;

<u>responsive to a data stream being at an active connection of the one or more communication connections, generating, by the peer, translated connection specifications from connection specifications of the data stream using</u>

the original connection parameters and the current connection parameters mapped to the active connection; and

communicating, by the peer, the data stream using the translated connection parameters to provide peer-to-peer communications.

2.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 1, wherein the local connection translation table further comprises ~~at least one~~ original connection parameter<u>s</u> and ~~at least one~~ current connection parameter<u>s</u> for each active communication connection.

3.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 2, wherein:

each active communication connection comprises at least one data stream, and each data stream comprises at least one connection parameter of the communication connection; and

the method further comprises:

for each communication connection having an outbound data stream, translating ~~the~~ at least one connection parameter of the outbound data stream to ~~the~~ <u>a</u> corresponding at least one current connection parameter of the local connection translation table; and

for each communication connection having an inbound data stream, translating ~~the~~ at least one connection parameter of the inbound data stream to ~~the~~ <u>a</u> corresponding at least one original connection parameter of the local connection translation table.

4.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 3, wherein: each data stream comprises at least one Internet protocol (IP) datagram;

the ~~at least one~~ current connection parameter<u>s</u> comprises a current local IP address; and

<u>wherein</u> translating the at least one connection parameter of the outbound data stream ~~to the corresponding at least one current connection parameter of the local connection translation table~~ <u>further</u> comprises replacing ~~the~~ <u>a</u> source address of each outbound IP datagram with the current local IP address.

5.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 4, wherein~~:~~ the ~~at least one~~ current connection parameter<u>s</u> further comprise~~s~~ a current remote IP address; and

<u>wherein</u> translating the at least one connection parameter of the outbound data stream ~~to the corresponding at least one current connection parameter of the local connection translation table~~ further comprises~~:~~ replacing the destination address of each outbound IP datagram with the corresponding current remote IP address.

6.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 1, wherein the local connection translation table further comprises an original connection specification and a current connection specification for each active communication connection, and each connection specification comprises:

    a local network attachment point identifier; and

    a remote network attachment point identifier.

7.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 6, wherein each network attachment point identifier comprises:

    an Internet protocol (IP) address; and

    a transmission control protocol (TCP) port.

8.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 6, wherein each network attachment point identifier comprises:

    an Internet protocol (1P) address; and

    a user datagram protocol (UDP) port.

9.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 6, wherein maintaining the local connection translation table comprises: as a result of a local network attachment point change, for each entry in the local connection translation table, updating the local network attachment point identifier of the current connection specification of the local connection translation table entry.

10. (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 6, wherein the method further comprises receiving a Connection Update message, the Connection Update message comprising:

an original connection identifier; and

a new network attachment point identifier.

11. (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 10, wherein maintaining the local connection translation table comprises: as a result of receiving the Connection Update message, updating the remote network attachment point identifier of the current connection specification of the local connection translation table entry identified by the original connection identifier of the Connection Update message.

12. (Currently amended) A <u>tangible</u> computer-readable <u>data storage</u> medium having thereon computer-executable instructions for performing a method comprising<u>:</u>

<u>maintaining, by a local peer, a peer-to-peer connection between the local peer and one or more remote peers, by</u> sending, as a result of ~~a~~ <u>the</u> local peer changing ~~it's~~ <u>a</u> network attachment point from a first network attachment point to a second network attachment point, a Connection Update message to each remote peer participating in a communication connection with the local peer, the Connection Update message comprising:

a communication connection identifier <u>indicating one or more original communication session connection parameter(s) specified by the local peer to establish an initial communication connection with the local peer;</u> and

an identifier of the second network attachment point<u>, each remote peer using the second network attachment point to communicate with the local peer</u>.

13.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 12, wherein the Connection Update message further comprises a cryptographic signature authenticating the identity of the local ~~peer~~ <u>peer.</u>

14.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 12, wherein the method further comprises publishing the local network attachment point change event to a virtual connectivity subscribe-notify service.

15.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 14, wherein publishing the local network attachment point change event to a virtual connectivity subscribe-notify service comprises sending a publish message from the local peer to the virtual connectivity subscribe-notify service, the publish message comprising:

an identifier of the first network attachment point; and the identifier of the second network attachment point.

16.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 12, wherein the Connection Update message is sent between peers by being incorporated into a lower layer network protocol.

17.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 16, wherein: the lower layer network protocol is the Internet protocol (IP) ; and

the Connection Update message is incorporated into the Internet protocol as at least one IP option.

18.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 16, wherein: the lower layer network protocol is the transmission control protocol (TCP); and

the Connection Update message is incorporated into the transmission control protocol as at least one TCP option.

19.   (Currently amended) The <u>tangible</u> computer-readable <u>data storage</u> medium of claim 16, wherein: the lower layer network protocol is the user datagram protocol (UDP); and

the Connection Update message is incorporated into the user datagram protocol by, at least, appending the Connection Update message data to a UDP datagram, the Connection Update message data formatted as for TCP options.

20.   (Currently amended) A ~~computerized system~~ computing device comprising:

a local connection translation component configured to, at least, maintain a local connection translation table, the local connection translation table comprising a local connection translation table entry for each active communication connection between a communication peer local to the local connection translation component and a communication peer remote to the local connection translation component, each local connection translation table entry comprising:

an original connection specification to indicate an original network attachment point used to initially establish a communication session between the communication peer local to the local connection translation component and a respective remote peer; ~~and~~

a current connection specification, the current connection specification being different from the original connection specification if a peer participating in the communication session is no longer using the original network attachment point; and

the computerized system being configured to use information in the local connection translation table to translate data stream connection specifications and ensure that data packets get routed to appropriate addresses and ports in peer-to-peer communications.

21.   (Currently amended) The ~~computerized system~~ computing device of claim 20, wherein each connection specification comprises:

an identifier of ~~the~~ a first network attachment point of the communication peer local to the local connection translation component; and

an identifier of ~~the~~ a second network attachment point of the communication peer remote to the local connection translation component.

22.   (Currently amended) The ~~computerized system~~ computing device of claim 20, wherein the local connection translation component is further configured to, at least:

intercept each network protocol unit outbound from the communication peer local to the local connection translation component;

determine the local connection translation table entry associated with the outbound protocol unit; and

replace at least one data field value in the outbound protocol unit that corresponds to at least one parameter of the original connection specification of the local connection translation table entry associated with the outbound protocol unit with at least one value from the corresponding at least one parameter of the current connection specification of the local connection translation table entry associated with the outbound protocol unit.

23.   (Currently amended) The ~~computerized system~~ <u>computing device</u> of claim 20, wherein the local connection translation component is further configured to, at least:

intercept each network protocol unit inbound to the

communication peer local to the local connection translation component;

determine the local connection translation table entry associated with the

inbound protocol unit; and

replace at least one data field value in the inbound

protocol unit that corresponds to at least one parameter of the current

connection specification of the local connection

translation table entry associated with the inbound protocol unit with at

least one value from the corresponding at least one

parameter of the original connection specification of the local connection

translation table entry associated with the inbound protocol unit.

24.   (Currently amended) The ~~computerized system~~ <u>computing device</u> of claim 20, further comprising a connection management component configured to, at

least, receive a Connection Update message, the Connection Update

message comprising:

an identifier corresponding to the original connection

specification of a local connection translation table entry; and

an identifier of a new network attachment point of the communication peer

remote to the local connection translation component.